CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

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A. Work for the East German Government

1. The Ministry of the Interior-Special Plan

a. The expression "Ministry of the Interior-Special Plan" (MdI-Sonderplan) was first heard from the Russian officer Sen. Lt. Andexel. He was visiting the VEB Werk fuer Fernmeldewesen and mentioned it as a plan covering certain research and and development tasks in the field of electronics. The term was used later by Dr. Guenther Ulrich, head of the development division of the same plant. 25X1 25X1

b. The MdI-Sonderplan concerns, it has become clear, tasks of a military nature for East German armed forces in the field of communications engineering.

c. At first it was thought that those tasks in which Andexel was interested were for the USSR. In the course of time, it has become clear that this is not the case, as evidenced particularly by these facts:

(1) No Soviet acceptance or inspection officials have appeared in connection with any MdI-Sonderplan task;

(2) At the beginning of the year, the VEB Werk fuer Fernmeldewesen asked for a frequency on which they could test an experimental pulse code modulation line for the MdI plan. The Russian authorities in Berlin Karlshorst refused the request. The plant personnel reasoned that the Russians would certainly have released a frequency if the task had been for them;

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(NOTE: Washington distribution indicated by "X"; Field distribution by "#".)

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(3) [redacted]
the tasks were for the East German Government.

d. (1) The following tasks appear to belong to the MdI-Sonderplan:

(a) work on radar;
(b) Lilliput apparatuses;[1]
(c) secret communications equipment (Geheimhaltungs-Geraete- probably coding teleprinters and such apparatus.)

(2) The following tasks contributing to the plan are now known to be in progress in the VEB Werk fuer Fernmeldewesen:

(a) teleprinter with coding device;
(b) low noise-level travelling-wave tube and other unspecified special tubes; (incl. pencil tubes - see paragraph 4 a below)
(c) dm triode with L-cathode;
(d) pulse transmitting magnetron type (Impuls-Sende-Magnetron) LMS 1000;
(e) tape transmitter (Lochstreifengeber).

Within the experimental works (OSW) of VEB Werk fuer Fernmeldewesen, the tasks for the MdI-Sonderplan are never mentioned. People who are working on the tasks are bound to strict secrecy. The complete details are held only in Dr. Ulrich's safe.

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2. [redacted]

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3. Meeting in Main Administration for Radio and Telecommunications (HV RFT)

On 10 June 1954, there was a meeting in the Main Administration for Radio and Telecommunications of the Ministry of Machine Construction (HV RFT of MFM). Representatives of some 40 East German plants attended. The purpose of the meeting was to establish priorities for certain groups of tasks in East Germany. These priority tasks would then get preference in materials, and so on. In the field of communications engineering, the following tasks were declared to be priority tasks. At first the amount of money available was declared, but then a representative of the Ministry interrupted the speaker, and amounts of money were omitted from the discussion and passed in writing to those concerned.

Priority Tasks

(FW = Funkwerk)

FW Leipzig-Plagwitz

(a) All tasks for the MdI-Sonderplan (100,000 DM East)
(b) Developments in the field of electronics (500,000 DM East)

Dralowid-Werk Teltow(Werk "Carl von Ossietzky")

Very small resistances, miniature potentiometers and regulators, crystal diodes and surface transistors (1,800,000 DM East)

Kondensatoren-Werk Gera

Condensers, particularly very small parts and interference suppression parts (900,000 DM East)

FW Dresden

VHF work and electronic computers

Fernmeldewerk Leipzig

Carrier frequency engineering

Stalin-Werk Berlin (formerly Elektroapparatewerk Berlin-Treptow) (EAW)

Remote control and automatic techniques

FW Zwoenitz

Electromedical apparatus and oscillographs

FW Koepenick

MdI Sonderplan tasks, marine radio work and industrial HF apparatus

FW Erfurt

Transmitter and receiver tubes for industrial purposes. VHF measuring apparatus. Machines for production of radio tubes.

Werk fuer Fernmeldewesen, Berlin

Special tubes, transmitting tubes over 20 kw, cm and dm-measurement work, remote control, selector systems.

Sachsenwerk Radeberg

Communications link apparatus of all sorts, TV receivers, automatic current supply apparatus.

EFEM (Entwicklung und Fertigung Messinstrumente) Berlin

Tubeless measuring instruments

4. Pencil tubes and their L-cathodes

a. Pencil tubes

(1) The pencil tube (Schreibenroehre) now under development in the VEB Werk fuer Fernmeldewesen, East Berlin, is a copy of an RCA type. The diameter is 8 mm. Reciprocal of amplification factor (Durchgriff)= 0.5%. Slope (Steilheit) = 15 mA/V. The development of these tubes is being treated in the works as particularly secret.

(2) The tubes are for the classified Ministry of the Interior Special Plan.

(3) It is the opinion of a competent specialist in the plant that these tubes are for the 12 cm link communications program of the KVP.

b. The new L-cathode

(1) This cathode has been developed by the Werk fuer Fernmeldewesen; its development is not yet regarded as complete. The L-cathode (L = Leistung = power) has an activator which is diffused throughout through powdered metal (der durch Sintermetall hindurch diffundiert). Rhenium is used as sinter material in the ceramic and thorium or thorium ozide as the activator.

(2) The advantages of this cathode are that, first, they produce a high degree of freedom from noise through the high specific emission thickness. Secondly, the pencil tubes can give a high HF output at high frequencies without a high time-interval error (Laufzeitdefekt). Frequencies up to 2000 mcs can thus be reached.

(3) Metal ceramic tubes (such as the LD 12) are also being made with miniaturized electrode surfaces with L-cathodes. It was reported, for example, at a Radioastronomy Congress in East Germany on 30 October 1953, that the high sensitivity receivers needed for this work in Potsdam were supplied with metal ceramic triodes with L-cathodes.

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5. Working Party (Arbeitskreis) on cm wave engineering

a. The Working Party met on 19 March 1954. Among the group present was Dr. Huettel (fnu) from the Funkwerk Leipzig-Plagwitz. The Working Party discussed the development of a 10 cm echobox. This is for controlling the transmitted power and receiver sensitivity of radar apparatus. The echo-box, to be made by the Werk fuer Fernmeldewesen, is urgently needed by Leipzig-Plagwitz for its 10 cm radar work.

b. At this meeting the development of a 10 cm noise generator and of cm wave measuring devices for tg δ and ϵ was also discussed; for the last task, a letter from Dr. Artur Loesche of the University of Leipzig, requesting the development, was read. Work is apparently being done on the absorption or reflection spectroscopy of insulators in the cm wave band.

B. Work for the USSR

1. Soviet orders

a. Field strength meters (old order)

On the orders of E.P. Solovev of the Soviet Trade Delegation, further work on the field strength meters for the USSR was stopped in [redacted] 1954. A meter for 100 to 360 mcs had been delivered to the USSR but was not satisfactory and will probably have to be altered. [redacted] meter for 360 to 480 mcs was almost ready. Those for 550 to 650, 1400 to 1600 and 2800 to 3200 mcs were still under development.

b. New tasks

In mid-May Dr. Ulrich received an enquiry from the Zentralamt fuer Forschung und Technik (Central Office of Research and Technology) (ZAFT) whether the VEB Werk fuer Fernmeldewesen could take on the following tasks for the USSR:

(1) Field strength meters for 10 to 100 m and a sensitivity of 0.25 uv/m; fixed apparatus.

(2) The same for 20 to 74 cms, with the greatest sensitivity possible.

(3) Test oscillator (Messender) 15 to 30 cms with calibrated power meter.

(4) Travelling wave tubes 15 to 30 cms.

(5) Morse ink recorder (Tintenschreiber) with a speed of 2,000 or (?which) 12,000 words/min.

Dr. Ulrich eventually agreed to accept the first four tasks but not the fifth, which it was impossible to fulfil. It was considered in the works that the fifth probably contained a translation error and that a light recorder (Lichtschreiber) was meant; the fastest Siemens ink morse recorder does 1000 signs/minute.

[redacted] Comments:

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1. The Lilliput apparatuses refer to VHF duplex apparatus on 6 to 7 m, battery-operated, 0.1 W transmitter power, size about 10 cms x 5 cms. Some 3,000 of these were made for the Ministry of the Interior (BfW) last year.

2. While the wavelengths are correct, we are not entirely happy that there has not been a twist of apparatuses - Koepenick really working on anticollision apparatus, and Plagwitz on homing apparatus (Zielgeraete).